c.) **Amendments to the claims:**

Please cancel claim 20 without prejudice or disclaimer of the subject matter thereof.

Please amend claims 99-102, 104-114, and 116-121 as follows:

1-98. (previously canceled).

C1/ 99. (amended) A method for obtaining bioactive substances from plant material, comprising:

mechanically disrupting plant material comprising kava root ~~the material by grinding, crushing, or macerating~~;

contacting the disrupted material with a supercritical fluid containing carbon dioxide, an alcohol and an isopropyl amine, and separating the bioactive substances there from by supercritical fluid chromatography ~~at high pressure to remove bioactive substances from the plant material~~; and

collecting the ~~removed~~ bioactive substances with a resin trap~~;~~

~~eluting the bioactive substances from the resin trap; and~~

~~separating the substances by supercritical fluid chromatography, wherein the supercritical fluid that contacts the disrupted material comprises carbon dioxide, alcohol and isopropylamine as a secondary modifier~~.

2 100. (amended) The method of claim 99, wherein ~~the plant material is kava root~~ mechanically disrupting comprises grinding, crushing, macerating or a combination thereof.

3 101. (amended) The method of claim 99, wherein the ~~plant material is leaves and bark of Byrsonima crassifolia~~ disrupted material is contacted with the supercritical fluid at a minimum pressure of between 200 and 400 bar, and a maximum pressure of between 400 and 600 bar.

4 102. (amended) The method of claim 99, wherein the supercritical fluid chromatography ~~is carried out by~~ comprises passing the supercritical fluid through an ~~NH2~~ NH_2column.

5 103. (original) The method of claim 99, wherein the resin trap is a C-18 resin.

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104. (amended) The method of claim 99, wherein the column is maintained at a temperature of at least 90 degrees centigrade.

105. (amended) A method for obtaining a ~~high recovery of~~ kawain ~~and~~ or a methysticin from a kava root, comprising:

mechanically disrupting the kava root ~~by grinding, crushing, or macerating to prepare an extract~~;

contacting the disrupted material with a supercritical fluid containing carbon dioxide, ~~and~~ an alcohol and an isopropyl amine at a pressure of at least 350 atmospheres and separating ~~the~~ substances there from by supercritical fluid chromatography;

collecting the ~~removed kawain and methysticin~~ substances with a resin trap; and

eluting the kawain ~~and~~ or the methysticin from said substances ~~from the resin trap~~.

106. (amended) The method of claim 105, wherein the alcohol is an ethanol and said ethanol comprises at least 15% of said supercritical fluid.

107. (amended) The method of claim 105, wherein the supercritical fluid chromatography is carried out at a temperature of at least 60 degrees centigrade.

108. (amended) The method of claim 105, wherein the ~~supercritical~~ pressure is maintained between 350 to 450 atmospheres.

109. (amended) The method of claim 105, wherein the ~~column is maintained~~ supercritical fluid chromatography is carried out at a temperature of at least 90 degrees centigrade.

110. (amended) A method for obtaining a ~~high recovery of kavalactones p.32 line 11, Table 1]~~ kavalactone from kava root, comprising:

mechanically disrupting ~~the~~ a material containing kava root ~~to prepare an extract by grinding, crushing, or macerating~~;

contacting the disrupted material with supercritical fluid containing carbon dioxide, ~~and~~ an alcohol and an isopropyl amine, at a pressure of at least 275 atmospheres and separating the substances by supercritical fluid chromatography over an ~~NH2~~ NH_2 column;

collecting the ~~removed kavalactones~~ kavalactone with a resin trap; ~~and~~

~~eluting the kavalactones from the resin trap~~.

13 111. (amended) The method of claim 110, wherein 15% by volume of the ~~carbon dioxide~~ super critical fluid ~~by volume~~ is ~~replaced with~~ ethanol.

14 112. (amended) The method of claim 110, wherein the ~~extracted methysticin~~ kavalactone is ~~further~~ purified by supercritical fluid chromatography over ~~an NH2~~ another NH_2 column.

15 113. (amended) The method of claim 110, wherein the ~~NH2~~ NH_2 column is operated at a temperature above 40 degrees centigrade.

16 114. (amended) The method of claim 110, wherein the ~~analysis time is reduced by using a~~ supercritical fluid chromatography comprises ~~methanol in carbon dioxide~~ a gradient of from 7% to 10% methanol.

17 115. (original) The method of claim 110, wherein the column is maintained at a temperature of at least 90 degrees centigrade.

18 116. (amended) A method for obtaining bioactive substances from a plant material, comprising:

mechanically disrupting ~~the~~ plant material comprising kava root ~~by grinding, crushing, or macerating~~;

contacting the disrupted material with a supercritical fluid ~~of~~ containing isopropyl amine, carbon dioxide and ~~with~~ an alcohol ~~at high pressure to remove the bioactive substances from the plant material~~;

collecting the ~~removed~~ bioactive substances with a resin trap;

eluting the bioactive substances from the resin trap ~~and separating the~~

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~~substances~~ by supercritical fluid chromatography over an ~~NH2~~ NH_2 column~~,~~

~~wherein isopropylamine is mixed into the alcohol prior to mixing the alcohol with carbon dioxide as a secondary modifier~~.

117. (amended) The method of claim 116, wherein the ~~supercritical fluid in contact with the NH2 column is carbon dioxide and alcohol~~ isopropyl amine is mixed into the alcohol prior to mixing the alcohol with the carbon dioxide.

118. (amended) The method of claim 116, wherein the column is maintained at a temperature of at least 90 degrees centigrade.

119. (amended) The method of claim 116, wherein ~~the plant material is kava root~~ mechanically disrupting comprises grinding, crushing, macerating or a combination thereof.

120. (amended) A ~~purified~~ preparation of bioactive substances obtained by ~~the method of claim 116~~ a method consisting essentially of:

mechanically disrupting plant material comprising kava root;

contacting the disrupted material with a supercritical fluid containing carbon dioxide, an alcohol and an isopropyl amine, and separating the bioactive substances there from by supercritical fluid chromatography; and

collecting the bioactive substances with a resin trap.

121. (amended) ~~A purified~~ The preparation of bioactive substances ~~obtained by the method~~ of claim ~~116~~ 120, ~~wherein the plant material is kava root~~ which comprises one or more bioactive substances selected from the group consisting of a kawain, a methysticin, a kavalactone, and a combination thereof.